

Pharmacologic Management of Asthma

Asthma Medications

The goals of treatment for asthma are to minimize symptoms and allow children to participate in normal physical activities with minimum side effects. It is also important to prevent emergency department visits and hospitalizations due to asthma attacks. Ideally, this means your child should not experience asthma symptoms more than once or twice per week, asthma symptoms should not wake your child at night more than twice per month, and your child should be able to participate in all play, sports, and physical education activities.

Asthma medications come in a variety of forms, including the following:

- Metered-dose inhalers
- Dry powder inhalers
- Liquids that can be used in nebulizers
- Pills

Inhaled forms are preferred because they deliver the medication directly to the air passages with minimal side effects.

Medications Used to Treat Asthma

Asthma is different in every patient, and symptoms can change over time. Your health care provider will determine which asthma medication is best for your child based on the severity and frequency of symptoms and your child's age. Children with asthma symptoms that occur only once in a while are given medications only for short periods. Children with asthma whose symptoms occur more often need to take controller medications every day.

Sometimes it is necessary to take several medications at the same time to control and prevent symptoms. Your health care provider may give your child several medications at first, to get the asthma symptoms under control, and then decrease the medications as needed. Your health care provider may also recommend a peak flow meter for your child to use at home to monitor lung function. This can help you make decisions about changing therapy or following the effects of changes made by your health care provider.

Asthma medications are divided into 2 groups: quick-relief medications and controller medications.

Quick-Relief Medications

Quick-relief medications are for short-term use to open up narrowed airways and help relieve the feeling of tightness in the chest, wheezing, and breathlessness. They can also be used to prevent exercise-induced asthma. These medications are taken only on an as-needed basis. The most common quick-relief medication is albuterol.

Controller Medications

Controller medications are used on a daily basis to control asthma and reduce the number of days or nights that your child has symptoms. Controller medications are not used for relief of symptoms. Children with symptoms more than twice per week or who wake up more than twice per month should be on controller medications.

Controller medications include the following:

- Inhaled steroids
- Long-acting bronchodilators
- Combination products that contain inhaled steroids and long-acting bronchodilators
- Leukotriene receptor antagonists (only available in pill form)
- Inhaled nonsteroids (such as cromolyn or nedocromil)
- Methylxanthines (for example, theophylline)

Inhaled corticosteroids are the preferred controller medication for all ages. When used in the recommended doses, they are safe for most children. In your child's particular case, however, your health care provider may recommend another type of controller medication.

Asthma Management Plan

It is usually helpful to have an asthma management plan written down so you can refer to it from time to time. Such a plan should contain information on daily medications your child takes as well as instructions on what to do for symptoms. A plan should also be provided to your child's school.

Exercise-Induced Asthma

Exercise can often trigger symptoms in children with asthma. It can almost always be prevented with use of quick-relief medications taken 10 to 15 minutes before exercise. If it occurs frequently, however, it may mean your child's asthma is not under control. Proper asthma control can make a great difference in the ability for a child to exercise normally. It is important for parents to speak to their child's physical education teachers and coaches about their child's asthma management.

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